



Docket No.: 13173-00010-US
(PATENT) *Zfw*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Holger Puchta et al.

Conf. No.: 2084

Application No.: 10/750,891

Group Art Unit: Not Yet Assigned

Filed: January 5, 2004

Examiner: Not Yet Assigned

For: RECOMBINATION SYSTEMS AND
METHODS FOR ELIMINATING NUCLEIC
ACID SEQUENCES FROM GENOME OF
EUKARYOTIC ORGANISMS

INFORMATION DISCLOSURE STATEMENT (IDS) AND TRANSMITTAL OF
TRANSLATION OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT
AND INTERNATIONAL SEARCH REPORT

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

Of the documents listed on the attached SB/08 are the documents cited in the International Search Report during the prosecution of international application no. PCT/EP02/07281, which corresponds to the above referenced application, and in accordance with 37 CFR 1.97(b)(3), Applicants hereby submit these documents for the Examiner's consideration.

A copy of each reference on the PTO/SB/08 which is required is attached. Applicants enclose herewith a copy of the International Search Report and the English translation of the International Preliminary Examination Report.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such. Moreover, Applicants understand the Examiner will make an independent evaluation of the cited documents.

This Information Disclosure Statement is being submitted before the first Office Action on the merits; accordingly, Applicants believe no fee is due with this response. However, if a fee is due, the Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 13173-00010-US from which the undersigned is authorized to draw.

Respectfully submitted,

By 
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PTO/SB/92 (09-04)

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Application No. (if known): 10/750,891

Attorney Docket No.: 13173-00010-US

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Information Disclosure Statement (2 pages)
IDS (Citation) (PTO/SB/08) by Applicant (29 References) (2 pages)
Copies of 27 References
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Substitute for form 1449A/B/PTO

Complete If Known

Application Number	10/750,891-Conf. #2084				
Filing Date	January 5, 2004				
First Named Inventor	Holger Puchta				
Art Unit	N/A				
Examiner Name	Not Yet Assigned				
Sheet	1	of	2	Attorney Docket Number	13173-00010-US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	AA*	US-5,792,632	08-11-1998	DUJON, et al.	
	AB*	US-5,527,695	06-18-1996	HODGES, et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
	BA	WO-96/14408	05-17-1996	Institut Pasteur, et al.		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * CITE NO.: Those application(s) which are marked with an single asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA	PUCHTA, H., et al., "Two Different but related mechanisms are used in plants for the repair of genomic double-strand breaks by homologous recombination", Proc. Natl. Acad. Sci. USA, Vol. 93, 1996, pp. 5055-5060.	
	CB	AGGARWAL, A., et al., "Novel site-specific DNA endonucleases", Current Opinion in Structural Biology, Vol. 8, 1998, pp. 19-25.	
	CC	RUSSELL, S., et al. "Directed Excision of a Transgene from the Plant Genome", Mol. Genet. Genet., Vol. 234, 1992, pp. 49-59.	
	CD	KILBY, N., et al., "FLP Recombinase in Transgenic Plants: Constitutive Activity in Stably Transformed Tobacco and Generation of Marked Cell Clones in Arabidopsis", The Plant Journal, Vol. 8, No. 5, 1995, pp. 637-652.	
	CE	ONOUCHI, H., et al., "Visualization of Site-Specific Recombination Catalyzed by a Recombinase from <i>Zygosaccharomyces rouxii</i> in <i>Arabidopsis thaliana</i> ", Mol. Gen. Genet., Vol. 247, 1995, pp. 653-660.	
	CF	HABER, J., "In Vivo Biochemistry: Physical Monitoring of Recombination Induced by Site-Specific Endonucleases", BioEssays, Vol. 17, No. 7, 1995, pp. 609-620.	
	CG	PUCHTA, H., "Use of I-Sce I to Induce DNA Double-Strand Breaks in Nicotiana", Chapter 36, in Methods in Molecular Biology, Vol. 113, DNA Repair Protocols: Eucaryotic Systems, Henderson, D.S., ed., Humana Press Inc., NJ, USA, 1999, pp. 447-451.	
	CH	SEGAL, D., et al., "Endonuclease-induced, Targeted Homologous Extrachromosomal Recombination in <i>Xenopus Oocytes</i> ", Proc. Natl. Acad. Sci. USA, Vol. 92, 1995, pp. 806-810.	
	CI	KUZMINOV, A., "Recombinational Repair of DNA Damage in <i>Escherichia coli</i> and Bacteriophage λ", Microbiology and Molecular Biology Reviews, Vol. 63, No. 4, 1999, pp. 751-813.	
	CJ	HEIFETZ, P., et al., "Protein Expression in Plastids", Current Opinion in Plant Biology, Vol. 4, 2001, pp. 157-161.	
	CK	MENGISTE, T., et al., "Prospects for the Precise Engineering of Plant Genomes by Homologous Recombination", Biol. Chem., Vol. 380, 1999, pp. 749-758.	

Examiner Signature	Date Considered
413082	413082413

Substitute for form 1449A/B/PTO				Complete if Known	
				Application Number	10/750,891-Conf. #2084
				Filing Date	January 5, 2004
				First Named Inventor	Holger Puchta
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	2	of	2	Attorney Docket Number	13173-00010-US

	CL	HOHN, B., et al., "Gene Therapy in Plants", Proc. Natl. Acad. Sci. USA, Vol. 96, 1999, pp. 8321-8323.	
	CM	PUCHTA, H., et al., "From CentiMorgans to Base Pairs: Homologous Recombination in Plants", Trends in Plant Science, Vol. 1, No. 10, 1996, pp. 340-348.	
	CN	SIEBERT, R., et al., "Efficient Repair of Genomic Double-Strand Breaks by Homologous Recombination between Directly Repeated Sequences in the Plant Genome", The Plant Cell, Vol. 14, 2002, pp. 1121-1131.	
	CO	DALE, E., et al., "Gene Transfer with Subsequent Removal of the Selection Gene from the Host Genome", Proc. Natl. Acad. Sci. USA, Vol. 88, 1991, pp. 10558-10562.	
	CP	OSBORNE, B., et al., "A System for Insertional Mutagenesis and Chromosomal Rearrangement Using the Ds Transposon and Cre-lox", The Plant Journal, Vol. 7, No. 4, 1995, 687-701.	
	CQ	LYZNIK, L.A., et al., "FLP-Mediated Recombination of FRT Sites in the Maize Genome", Nucleic Acids Research, Vol. 24, No. 19, 1996, pp. 3784-3789.	
	CR	SUGITA, K., et al., "A transformation Vector for the Production of Marker-Free Transgenic Plants Containing a Single Copy Transgene at High Frequency", The Plant Journal, Vol. 22, No. 5, 2000, pp. 461-469.	
	CS	JASIN, M., "Genetic Manipulation of Genomes with Rare-Cutting Endonucleases", TIG, Vol. 12, No. 6, 1996, pp. 224-228.	
	CT	BIBIKOVA, M., et al., "Stimulation of Homologous Recombination through Targeted Cleavage by Chimeric Nucleases", Molecular and Cellular Biology, Vol. 21, No. 1, 2001, pp. 289-297.	
	CU	PÓSFAI, G., et al., "Markerless Gene Replacement in <i>Escherichia coli</i> Stimulated by a Double-Strand Break in the Chromosome", Nucleic Acids Research, Vol. 27, No. 22, 1999, pp. 4409-4415.	
	CV	DÜRRENBERGER, F. et al., "Double Strand Break-Induced Recombination in <i>Chlamydomonas reinhardtii</i> Chloroplasts", Nucleic Acids Research, Vol. 24, No. 17, 1996, pp. 3323-3331.	
	CW	KANAAR, R., et al., "Recombination and Joining: Different Means to the Same Ends", Genes and Function, Vol. 1, No. 3, 1997, pp. 165-174.	
	CX	VERGUNST, A.C., et al., "Recombination in the Plant Genome and its Application in Biotechnology", Critical Reviews in Plant Sciences, Vol 18, No. 1, 1999, pp. 1-31.	
	CY	ROTH, D., et al., "Illegitimate Recombination in Mammalian Cells", Chapter 21 in Genetic Recombination, Kucherlapati, R., et al., eds., Washington, 1988, pp. 621-635.	
	CZ	PUCHTA, H., "Removing Selectable Marker Genes: Taking the Shortcut", Trends in Plant Science, Vol. 5, No. 7, 2000, p. 273-274.	

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